

ANNEX TO RESOLUTION No. 42 (Rev. ~~Orb-88~~WRC-95)

1. An administration or a group of administrations in Region 2 may, after successful application of the procedure contained in this Annex and with the agreement of the affected administrations, use an interim system during a specified period not exceeding ten years in order:

1.1 For an interim system in the broadcasting-satellite service

- a) to use an increased e.i.r.p. in any direction relative to that appearing in the Region 2 Plan provided that the power-flux density does not exceed the limits given in Annex 5 to Appendix ~~30 (Orb-85)~~S30;
- b) to use modulation characteristics¹ different from those appearing in the Annexes to the Region 2 Plan and resulting in an increased probability of harmful interference or in a wider assigned bandwidth;
- c) to change the coverage area by displacing boresight, or by increasing the major or minor axis, or by rotating them from an orbital position which shall be one of the corresponding orbital positions appearing in the Region 2 Plan;
- d) to use a coverage area appearing in the Region 2 Plan or a coverage area encompassing two or more coverage areas appearing in the Region 2 Plan from an orbital position which shall be one of the corresponding positions appearing in the Region 2 Plan;
- e) to use a polarization different from that in the Region 2 Plan.

1.2 For an interim feeder-link system

- a) to use an increased e.i.r.p. in any direction relative to that appearing in the Region 2 feeder-link Plan;
- b) to use modulation characteristics¹ different from those appearing in the Annexes to the Plan and resulting in an increased probability of harmful interference or in a wider assigned bandwidth;
- c) to change the feeder-link beam area by displacing the boresight, or by increasing the major or minor axis, or by rotating them in relation to an orbital position which shall be one of the corresponding orbital positions appearing in the Region 2 feeder-link Plan;
- d) to use a feeder-link beam area appearing in the Region 2 feeder-link Plan or a feeder-link beam area encompassing two or more feeder-link beam areas appearing in the Region 2 feeder-link Plan in relation to an orbital position which shall be one of the corresponding orbital positions appearing in the Region 2 feeder-link Plan;
- e) to use a polarization different from that in the Region 2 feeder-link Plan.

2. In all cases, an interim system shall correspond to assignments in the appropriate Region 2 Plan; the number of assignments to be used in an interim system shall not in any case exceed the number of assignments appearing in the Region 2 Plan which are to be suspended. During the use of an interim system, the use of the corresponding assignments in the Region 2 Plan is suspended; they shall not be brought into use before the cessation of the use of the interim system. However, the suspended assignments, but not the interim system's assignments, of an

¹ For example, modulation with sound channels frequency-multiplexed within the bandwidth of a television channel, digital modulation of sound and television signals, or other pre-emphasis characteristics.

administration shall be taken into account when other administrations apply the procedure of Article 4 of Appendix 30 (Orb-85) or of Article 4 of Appendix 30A (Orb-88), as appropriate Article S10, in order to modify the Plans, or the procedure of this Annex in order to bring an interim system into use. The assignments of interim systems shall not be taken into account in applying the procedure of Article 6 or Article 7 of Appendix 30 (Orb-85) and the procedure of Article 6 or Article 7 of Appendix 30A (Orb-88) Article S9, Section II.

3. As a specific consequence of paragraph 2 above, Region 2 interim system assignments shall not obtain protection from, or cause harmful interference to, new or modified assignments appearing in the Regions 1 and 3 Plans following the successful application of the procedure of ~~Article 4 of Appendix 30 (Orb-85) or of Article 4 of Appendix 30A (Orb-88), as appropriate~~ Article S10, even if the assignment modification procedure is concluded and the assignments become operational within the time-limits specified in paragraph 4 a).

4. When an administration proposes to use an assignment in accordance with paragraph 1, it shall communicate to the ~~IFRB-Bureau~~ the information listed in ~~Annex 2 to Appendix 30 (Orb-85) or in Annex 2 to Appendix 30A (Orb-88), as appropriate~~, Appendix S4, not earlier than five years but, preferably, not later than twelve months before the date of bringing into use. The administration shall also indicate:

- a) the maximum specified period during which the interim assignment is intended to remain in use;
- b) the assignments in the Region 2 Plans the use of which will remain suspended for the duration of the use of the corresponding interim assignment;
- c) the names of the administrations with which an agreement for the use of the interim assignment has been reached, together with any comment relating to the period of use so agreed and the names of administrations with which an agreement may be required but has not yet been reached.

5. Administrations are considered to be affected as follows:

5.1 For an interim system in the broadcasting-satellite service

- a) an administration of Region 2 is considered to be affected if any overall equivalent protection margin of one of its assignments in the Region 2 Plan, calculated in accordance with Annex 5 to Appendix ~~30 (Orb-85)~~ S30 including the cumulative effect of all interim uses during the maximum specified period of use of the interim system, but excluding the corresponding suspended assignments (paragraph 4 b)), becomes negative or a former negative value is made more negative;
- b) an administration of Region 1 or 3 is considered to be affected if it has an assignment which is in conformity with the Regions 1 and 3 Plan ~~contained in Appendix 30 (Orb-85) or in respect of which proposed modifications have been published by the Board-Bureau in accordance with the provisions of Article 4 of that Appendix~~ Article S10 with a necessary bandwidth which falls within the necessary bandwidth of the proposed interim assignment and the appropriate limits of Section 3 of Annex 1 to Appendix ~~30 (Orb-85)~~ S30 are exceeded;
- c) an administration of Region 1 or 3 is considered to be affected if it has a frequency assignment in the fixed-satellite service which is recorded in the Master Register or which has been coordinated or is being coordinated under the provisions of ~~No. 1060 of the Radio Regulations or under Article 7 of Appendix 30 (Orb-85)~~ Article S9, Section II or which has been published in accordance with ~~No. 1044 of the Radio Regulations or of paragraph 7.1.3 of Appendix 30~~

~~(Orb-85)~~ Article S9, Section I and the appropriate limits of Section 6 of Annex 1 to Appendix 30 ~~(Orb-85)~~ S30 are exceeded;

- d) an administration of Region 1 or 3 is considered to be affected if, although having no frequency assignment in the appropriate Regions 1 and 3 Plan in the channel concerned, it nevertheless would receive on its territory a power-flux density value which exceeds the limits given in Section 5 of Annex 1 to Appendix 30 ~~(Orb-85)~~ S30 as a result of the proposed interim assignment, or if it has such an assignment for which its associated service area does not cover the whole of the territory of the administration, and in its territory outside that service area the power-flux density from the interim system space station exceeds the above mentioned limits;
- e) an administration of Region 2 is considered to be affected if, although having no frequency assignment in the appropriate Region 2 Plan in the channel concerned, it nevertheless would receive on its territory a power-flux density value which exceeds the limits given in Section 8 b) of Annex 1 to Appendix 30 ~~(Orb-85)~~ S30 as a result of the proposed interim assignment, or if it has such an assignment for which its associated service area does not cover the whole of the territory of the administration, and in its territory outside that service area the power-flux density from the interim system space station exceeds the above-mentioned limits;
- f) an administration of Region 3 is considered to be affected if it has a frequency assignment to a space station in the broadcasting-satellite service in the band 12.5 - 12.7 GHz with a necessary bandwidth any portion of which falls within the necessary bandwidth of the proposed assignment, and which:
 - is recorded in the Master Register; or
 - has been coordinated or is being coordinated under the provisions of Resolution 33 of the World Administrative Radio Conference, Geneva, 1979 Article S9, Section II; or
 - appears in a Region 3 Plan to be adopted at a future administrative radio conference, taking account of modifications which may be introduced subsequently in accordance with the Final Acts of that conference,and the limits of Section 3, Annex 1 to Appendix 30 ~~(Orb-85)~~ S30 are exceeded.

5.2 For interim feeder-link systems

- a) an administration of Region 2 is considered to be affected if any overall equivalent protection margin of one of its assignments in the Plan, calculated in accordance with Annex 3 to Appendix 30A ~~(Orb-88)~~ S30A including the cumulative effect of all interim uses during the maximum specified period of use of the interim system, but excluding the corresponding suspended assignment(s) (paragraph 4 b)), becomes negative or a former negative value is made more negative;
- b) an administration in Region 1 or 3 is considered to be affected if it has an assignment for feeder links in the fixed-satellite service (Earth-to-space), any portion of the necessary bandwidth of which falls within the necessary bandwidth of the proposed assignment, which is in conformity with the feeder-link Plan for Regions 1 and 3, or in respect of which proposed modifications to the Plan have already been published by the Board Bureau in accordance with the provisions of paragraphs 4.2.6.1 and 4.2.7 of Article 4 of Appendix 30A ~~(Orb-88)~~ Article S10 and for which the limits set out in Section 5 of Annex 1 to Appendix 30A ~~(Orb-88)~~ S30A are exceeded;

- c) an administration in Regions 1, 2 or 3 is considered to be affected if it has a frequency assignment in the fixed-satellite service (space-to-Earth) which is recorded in the Master Register or which has been coordinated or is being coordinated under the provisions of ~~No. 1060 of the Radio Regulations~~ Article S9, Section II and the appropriate limits of Section 1 of Annex 1 to Appendix ~~30A (Orb-88)~~ S30A are exceeded;
 - d) an administration in Regions 1, 2 or 3 is considered to be affected if it has a frequency assignment in the band 17.7 - 17.8 GHz to a terrestrial station, in use or intended to be brought into use within three years of the projected date of bringing into use of the feeder-link earth station, which is located within the coordination area of the feeder-link earth station concerned and the limits of Section 2 of Annex 1 to Appendix ~~30A (Orb-88)~~ S30A are exceeded.
6. The ~~Board~~ Bureau shall publish in a special section of its weekly circular the information received under paragraph 4, together with the names of the administrations which the ~~Board~~ Bureau has identified in applying paragraph 5.
7. When the ~~Board~~ Bureau finds that the suspended assignment of an administration having an interim system is not affected, it shall examine the projected interim system with respect to the interim system of that administration and if there is an incompatibility, it shall request the two administrations concerned to adopt any measures that may enable the new interim system to be operated.
8. The ~~Board~~ Bureau shall send a telegram to the administrations listed in the special section of the weekly circular drawing their attention to the information it contains and shall send them the results of its calculations.
9. Any administration not listed in the special section which considers that its planned interim assignment may be affected shall so inform the administration responsible for the interim system and the ~~Board~~ Bureau, and the two administrations shall endeavour to resolve the difficulty before the proposed date of bringing the interim assignment into use.
10. An administration which has not sent its comments either to the administration seeking agreement or to the ~~Board~~ Bureau within a period of four months following the date of the weekly circular referred to in paragraph 6 shall be understood as having agreed to the proposed interim use.
11. On the expiry of four months following the date of publication of the weekly circular referred to in paragraph 6, the ~~Board~~ Bureau shall review the matter, and, depending on the results obtained, shall inform the administration proposing the interim assignment that:
- a) it may notify its proposed use under Article 5 of Appendix ~~30 (Orb-85)~~ S30 or Article 5 of Appendix ~~30A (Orb-88)~~ S30A as appropriate, if no agreement is required or the required agreement has been obtained from the administrations concerned. In this case the ~~Board~~ Bureau shall update the Interim List;
 - b) it may not bring into use its interim system before having obtained the agreement of the administrations affected, either directly or by applying the procedure described in ~~Article 4 of Appendix 30 (Orb-85) or Article 4 of Appendix 30A (Orb-88)~~, as appropriate Article S10, as a means of obtaining that agreement.
12. The ~~Board~~ Bureau shall include all the interim assignments in an Interim List in two parts, one each for the broadcasting-satellite service and the feeder-link assignments, and shall update it in accordance with this Annex. The Interim List shall be published together with the Region 2 Plans but does not constitute part of them.
13. One year prior to the expiry of the interim period, the ~~Board~~ Bureau shall draw the attention of the administration concerned to this fact and request it to notify in due time the deletion of the assignment from the Master Register and the Interim List.

14. If, notwithstanding the reminders by the ~~Board~~Bureau, an administration does not reply to its request sent in application of paragraph 13, the ~~Board~~Bureau shall, at the termination of the interim period:

- a) enter a symbol in the Remarks Column of the Master Register to indicate the lack of response and that the entry is for information only;
- b) not take that assignment into account in the Interim List;
- c) inform the administrations concerned and affected of its action.

15. When an administration confirms the termination of the use of the interim assignment, the ~~Board~~Bureau shall delete the assignment concerned from the Interim List and the Master Register. Any corresponding assignment in the Plan(s), suspended earlier, may then be brought into use.

16. An administration which considers that its interim system may continue to be used after the expiry of the interim period may extend it by not more than four years and to this effect shall apply the procedure described in this Annex.

17. When an administration applies the procedure in accordance with paragraph 16, but is unable to obtain the agreement of one or more affected administrations, the ~~Board~~Bureau shall indicate this situation by inserting an appropriate symbol in the Master Register. Upon receipt of a complaint of harmful interference, the administration shall immediately cease operation of the interim assignment.

18. When an administration, having been informed of a complaint of harmful interference, does not cease transmission within a period of thirty days after the receipt of complaint, the ~~Board~~Bureau shall apply the provisions of paragraph 14.

RESOLUTION No. 46 (WARC-92/Rev.WRC-95)

Interim Procedures for the Coordination and Notification of Frequency Assignments of Non-Geostationary-Satellite Networks in Certain Space Services and the Other Services to Which the Bands are Allocated¹

~~The World Administrative Radio-Radiocommunication Conference for Dealing with Frequency Allocations in Certain Parts of the Spectrum (Malaga-Torremolinos, 1992/Geneva, 1995),~~

considering

- a) that in several different space radiocommunication services there is increasing interest in the use of space systems using non-geostationary-satellite networks;
- b) that, in order to ensure the satisfactory operation of such networks, other networks and other radio services sharing the same frequency bands, taking into account the relevant allocations, there is a need for procedures to regulate the frequency assignments of non-geostationary-satellite networks;
- c) that the coordination methods for non-geostationary-satellite networks require specific criteria and calculation methods which are not yet available;
- d) that, consequently, there is a need for interim procedures to be applied until such time as a future conference, with the benefit of further studies by the GCIR-Radiocommunication Study Groups and taking account of the experience gained in practice, is able to adopt a permanent procedure;

considering also

- e) ~~that the Plenipotentiary Conference (Nice, 1989), initiated the formation of a Voluntary Group of Experts, one of whose tasks is to simplify the procedures of the Radio Regulations;~~
- f) that any new procedures adopted by this Conference must ~~therefore~~ be as simple as possible and should, where appropriate, make use of the existing procedures of the Radio Regulations;
- gf) that any interim procedures must take full account of the status of the allocations to services, both terrestrial and space, in frequency bands which may be used by non-geostationary-satellite networks;
- hg) that any interim procedures must also take full account of the interests of all countries, including the state of development of their terrestrial and space radiocommunication services;

¹ This Resolution shall be applied only to the frequency bands for which specific reference is made to this Resolution in the footnotes to the Table of Frequency Allocations. For the purpose of applying the interim procedures annexed to this Resolution, an administration, when providing information in the form of ~~Appendices 3 or 4~~ Appendix S4, shall state whether it relates to a geostationary satellite or to a non-geostationary satellite and shall provide the appropriate orbital information.

considering further

ih) that the provisions of No. [2613] of the Radio Regulations, while necessary to safeguard geostationary-satellite networks in the fixed-satellite service from interference which might be caused by non-geostationary-satellite networks, would, if more widely applied, prejudice the development of such systems in other space radiocommunication services;

recognizing

that the operation of telecommunication systems in the MSS bands must be in conformity with the Constitution and Convention of the International Telecommunication Union and the Administrative Regulations in force, in particular their respective preambles and, in this respect:

- a) the right of each Member to decide how or whether to participate in the above systems, and to determine the terms and conditions of access to such systems from its territory;
- b) the obligation for entities and organizations providing international or national telecommunication services by non-geostationary-satellite networks to operate at the point of delivery under the legal, financial and regulatory requirements of the Member of the Union in whose territory these services are authorized;

resolves

1. that, pending the adoption of a permanent procedure by a future competent conference, the use of frequency assignments by:

- a) non-geostationary-satellite systems in the space services in relation to other non-geostationary-satellite systems, geostationary-satellite systems and terrestrial systems;
- b) geostationary-satellite systems in relation to non-geostationary-satellite systems; and,
- c) terrestrial systems in relation to the earth stations of non-geostationary-satellite networks;

to which this Resolution applies shall be regulated in accordance with the interim procedures and the associated provisions in the annex hereto Articles S9 and S11 of Chapter SIII of the Radio Regulations;

~~2. that the interim procedures annexed to this Resolution apply in addition to those of Articles 11 and 13 for geostationary-satellite networks and shall replace those of Articles 11 and 13 for non-geostationary-satellite networks;~~

~~3. that the interim procedures annexed to this Resolution shall be applied from 4 March 1992;~~

invites

1. all administrations concerned in or by the introduction and operation of non-geostationary-satellite systems in the relevant space services to cooperate in the application of these interim procedures;

2. all those administrations which acquire experience in the application of the annexed interim procedures to contribute to the studies of the GCIR Radiocommunication Study Groups;

instructs the ~~IFRB~~Radiocommunication Bureau

to apply these procedures and to provide the necessary assistance to administrations;

invites the ~~CCIR~~Radiocommunication Study Groups

to study and develop Recommendations on the coordination methods, the necessary orbital data relating to non-geostationary-satellite systems, and the sharing criteria;

instructs the Secretary-General

to bring this Resolution, at an appropriate stage, to the attention of the ~~Administrative~~ Council with a view to the inclusion of this subject in the agenda of a future conference.

VGE Note - WRC-95 may wish to consider the need for retention of the detailed procedures in Sections I, II and III in view of the fact that the Simplified Procedures cover their substance.

RESOLUTION No. 107 (Orb-88)

**Satellite Networks Intended for Use in the Frequency
Bands of the Plan in Appendix 30B for Which
Information Was Communicated to the IFRB
Between 8 August 1985 and 5 October 1988**

VGE Note - In view of the special nature of this Resolution no changes are proposed. WRC-95 may decide on the appropriate action on this Resolution on the basis of a report from the Bureau.

RESOLUTION No. 110 (~~Orb-88~~Rev.WRC-95)

**Improved Procedures for Certain Bands
of the Fixed-Satellite Service**

~~The World Administrative Radio-Radiocommunication Conference on the Use of the
Geostationary-Satellite Orbit and the Planning of Space Services Utilizing It (Second Session—
Geneva, 1988/1995),~~

considering

- a) that the process of coordination of space services was initially laid down by the Extraordinary Radio Conference, 1963, improved by the World Administrative Radio Conference for Space Telecommunications, 1971 (WARC-71), and further expanded by the World Administrative Radio Conference, 1979 (WARC-79);
- b) that Resolution 2 of WARC-79 reiterated the principle of the equitable use by all countries, with equal rights, of the geostationary-satellite orbit (GSO) and of the frequency bands allocated to space services, first embodied in Resolution No. Spa2 – 1 of WARC-71;
- c) that Resolution 3 of WARC-79 resolved on the need to guarantee in practice for all countries equitable access to GSO and to the frequency bands allocated to space services and for this purpose decided to convene the World Administrative Radio Conference, to be held in two sessions;
- d) that the First Session of the ~~present~~ that Conference (Orb-85) agreed on the need for improved regulatory procedures as one of the methods for the planning of the fixed-satellite service and stipulated certain guidelines for this purpose;

noting

that Article ~~11~~ S11 of the Radio Regulations has elements of bilateral and multilateral consultations for coordinating the space systems and networks which administrations plan to bring into use;

noting further

that the concept of Multilateral Planning Meetings (MPM) is a part of a mechanism to provide equitable access to the limited natural resources of the GSO and the radio-frequency spectrum;

recognizing

- a) that the coordination of each satellite network presents unique circumstances and requirements;
- b) that success in such coordination and the resolution of the difficulties of new satellite networks could, in some cases, necessitate appropriate burden sharing;
- c) that any coordination process requires the cooperation and goodwill of all concerned administrations so as to realize a balance of interests of all parties;
- d) the need and obligation of all administrations concerned to reach mutually acceptable solutions in regard to the characteristics of the systems involved in the coordination process;
- e) that the provisions of Article ~~11~~ S11, ~~as amended~~ adopted by this Conference, foresee bilateral and multilateral discussions at any stage in the process of obtaining access to the limited natural resources of the GSO and the radiofrequency spectrum;

- f) that in some circumstances the convening of Multilateral Planning Meetings (MPM), as a part of the process of obtaining access to the limited natural resources of the GSO and the radio-frequency spectrum, could become an effective means of resolving difficulties;
- g) that the ~~IFRB Bureau~~ can assist administrations seeking to resolve difficulties in accordance with Nos ~~1088-1094~~ 1.6 and Article S13, Section I of the Radio Regulations;

resolves

1. that Multilateral Planning Meetings (MPM) shall also be a part of the process of coordination for the fixed-satellite service in the bands:
 - 3 700 - 4 200 MHz
5 850 - 6 425 MHz
 - 10.95 - 11.20 GHz
11.45 - 11.70 GHz
11.70 - 12.20 GHz in Region 2^[1]
12.50 - 12.75 GHz in Regions 1 and 3^[1, 2]
14.00 - 14.50 GHz
2. that the convening of such Multilateral Planning Meetings (MPM) would be appropriate when an administration finds it has a major difficulty in obtaining coordination under the pertinent provisions of Article ~~11~~ S11 in the frequency bands specified in **resolves** 1 above;
3. that any administration seeking the coordination of a satellite network in the fixed-satellite service to be operated in the frequency bands mentioned in **resolves** 1 above with respect to any other satellite network of the fixed-satellite service, has the right to propose to the other administrations concerned the holding of a Multilateral Planning Meeting (MPM);
4. that any administration which cannot attend a Multilateral Planning Meeting (MPM) may delegate another administration to represent it;
5. that if one or more of the affected administrations are unable to participate in a Multilateral Planning Meeting (MPM) for any reason, then the pertinent provisions of Article ~~11~~ S11 shall be applied to its (their) network(s);
6. that the results of a Multilateral Planning Meeting (MPM) shall be considered as coordination agreements among the participants and shall in no way prejudice the rights of non-participating administrations;
7. that the results of a Multilateral Planning Meeting (MPM) shall be conveyed to the Board Bureau in accordance with [Nos. 3.32 and 3.33 of] Article S9;

also resolves

that the representatives of the organizations responsible for the affected multi-administration systems can also participate in the Multilateral Planning Meeting (MPM);

^[1] In these bands the improved procedures shall apply between networks of the fixed-satellite service only.]

^[2] When a fixed-satellite service network is to be operated in the frequency band 12.5 - 12.75 GHz, as well as under No. 845 in the frequency band 12.2 - 12.5 GHz, the improved procedures may apply for coordination of that network.]

VGE Note: Footnotes [1] and [2] can be deleted as they are covered in substance in Article S9.

NOTES BY THE VGE

- 1) The following abbreviations are used in this Report to indicate recommended changes to the Radio Regulations provisions:

NOC	No change
ADD	Addition
(ADD)	Text transferred from elsewhere in the RR
MOD	Substantial modifications
(MOD)	Modifications without substantial changes
SUP	Deletion of the text
SUP*	Text transferred elsewhere

- 2) **S - numbering** scheme is used for identification of Chapters, Articles and newly introduced Sections.

Cross references are made to the existing RR numbers unless the referenced provision have been moved to a new place.

RESOLUTION No. 300 (Rev. ~~Mob-87~~ WRC-95)

**Use and Notification of the Paired Frequencies Reserved
for Narrow-Band Direct-Printing Telegraphy
and Data Transmission Systems in the HF Bands Allocated
on an Exclusive Basis to the Maritime Mobile Service**

(see Appendix ~~32~~ S17 ~~Section II~~)

The World Administrative Radio ~~Radiocommunication~~ Conference for the Mobile
Services, Geneva, ~~1987~~ 1995,

considering

- a) that certain sections of the HF bands allocated to the maritime mobile service have been reserved for narrow-band direct-printing telegraphy and data transmission systems for use on a paired frequency basis only;
- b) that Section II of Appendix 32 of S17 to the Radio Regulations contains a channelling arrangement in the maritime mobile HF bands for narrow-band direct-printing telegraphy and data systems (paired frequencies);
- c) that ~~this Conference has the WARC (Mob-87)~~ made available an increased number of paired frequencies reserved for narrow-band direct-printing telegraphy and data transmission systems for use on a paired basis only, and has modified Appendix 32-S17, Section II accordingly;
- d) that the World Maritime Administrative Radio Conference (WMARC, Geneva, 1974), established interim measures for the orderly bringing into use of the paired frequencies;
- e) that the WMARC 1974 established a provisional procedure for the use and notification of paired frequencies for narrow-band direct-printing telegraphy and that the application of this procedure by administrations and by the IFRB was satisfactory;

resolves

- 1. that paired frequencies in the HF bands reserved for narrow-band direct-printing telegraphy between coast stations and ship stations shall be used by these stations, notified to the IFRB-Bureau and recorded in the Master International Frequency Register in the following manner:
 - 1.1 assignments of pairs of frequencies for transmission and reception shall be made solely to coast stations. Ship stations of any nationality shall use by right for their transmissions the receiving frequencies of the coast stations with which they exchange traffic;
 - 1.2 each administration shall choose the pairs of frequencies for its requirements, if necessary with the assistance of the IFRB-Bureau;
 - 1.3 the assignments thus selected shall be notified to the IFRB-Bureau in notices as shown in Appendix 4-S4 to the Radio Regulations and administrations shall supply the basic characteristics listed in ~~Section A or B of that Appendix, as appropriate~~;
 - 1.4 whenever practicable, each notice should reach the Board-Bureau before the date on which the assignment is brought into use. It must reach the Board-Bureau not earlier than one year before the date on which it is to be brought into use but in any case not later than 30 days after it is actually brought into use;

urges

1. all administrations and organizations whose systems are affected to make every effort to participate in the Multilateral Planning Meeting (MPM);
2. all participants to make every effort for the success of the Multilateral Planning Meeting (MPM);

resolves further

1. that the Multilateral Planning Meeting (MPM) may be held at a place agreed by the affected administrations;
2. that the cost of a Multilateral Planning Meeting (MPM) shall be borne by the participants according to the arrangements agreed upon by all participants;
3. that, at the request of the administration initiating the Multilateral Planning Meeting (MPM), in agreement with the other affected administrations, the Secretary-General may supply secretarial services under contractual arrangements in accordance with No. ~~286 of the Nairobi Convention~~ 97 of the Geneva Convention (1992);
4. that any affected administration may call upon ~~the permanent organs of the Union (General Secretariat, IFRB and CCIR)~~ the Radiocommunication Bureau for any technical advice as it deems necessary;

further urges administrations

1. to hold bilateral or multilateral consultations at any stage of the process of obtaining access to the limited natural resources of the GSO and the radio-frequency spectrum when it is expected that such consultations will assist in the resolution of difficulties;
2. to cooperate and resolve mutually coordination problems in a spirit of international understanding, so as to uphold the principles of equal rights and equitable access to the GSO and the frequency bands allocated to space services for all administrations;

invites

the ~~Administrative~~ Council to monitor the progress of the application of this Resolution and, if difficulties arise in practice in the assurance of such equitable access, to propose that the Multilateral Planning Meeting (MPM) process be reviewed by a future competent conference.

SUP

RESOLUTION NO. 325 (MOB-87)

**Use of the Additional Channels Reserved for Duplex
Radiotelephony in the HF Bands Allocated
to the Maritime Mobile Service**

Reasons: Subject to WRC-95 decision to apply Article S10 in lieu of RR
Article 16 in relation to Appendix 25.

1.5 assignments which are in conformity with the Radio Regulations, and in particular Section II of Appendix 32S17, shall be examined by the Board-Bureau from the viewpoint of the probability of harmful interference to be caused by or to other existing or proposed uses. The Board-Bureau shall inform the administration concerned of the results of its examination and shall record the notified assignment with reference to this Resolution and without any date in Column 2. The date of receipt of the notice by the Board-Bureau and the date of putting into use of the assignment shall be entered in the Remarks Column. In cases where the Board-Bureau identifies incompatibilities, it shall make suggestions with a view to resolving them;

1.6 any notice not in conformity with the Radio Regulations shall be returned to the notifying administration by the IFRBBureau, together with any suggestion which the Board-Bureau may be able to submit in this respect;

1.7 should difficulties arise between administrations using the same channel, or adjacent channels, the matter shall be settled by agreement between the administrations concerned taking into account the information published by the IFRBBureau;

2. that a future competent conference be invited to review this Resolution and examine any difficulties which may have arisen in its application;

3. that the entries made in the Master Register under this Resolution shall in no way prejudice any decisions which may be taken by the aforementioned conference;

invites the ~~Administrative Council~~

to place this Resolution on the agenda of the next competent conference in order to examine any difficulties which may have arisen in its application.

RESOLUTION No. 411 (~~WARC-92~~Rev.WRC-95)

**Implementation of the New Provisions
Applicable in the Frequency Bands Allocated Exclusively to
the Aeronautical Mobile (OR) Service Between
3 025 kHz and 18 030 kHz**

The World Administrative Radio-Radiocommunication Conference for Dealing with
Frequency Allocations in Certain Parts of the Spectrum (~~Malaga-Torremolinos, 1992~~Geneva, 1995),

considering

- a) that the conditions for use of each of the frequency bands between 3 025 kHz and 18 030 kHz allocated exclusively to the aeronautical mobile (OR) service were modified by this Conference ~~WARC-92~~ so as to enable a more efficient usage of the available frequency spectrum;
- b) that the implementation of the modified conditions of use ~~will entail~~ a considerable workload for administrations, since a large number of frequency assignments to both aircraft and aeronautical stations ~~will have to be transferred from existing frequencies to the new frequencies and channels designated by this~~ that Conference;
- c) that the full implementation of the modified provisions for the frequency usage may require considerable investment for the replacement of the existing equipment;
- d) that, nevertheless, the modified provisions for frequency usage should be implemented fully and as soon as possible so that the advantages of the new arrangement may be realized at the earliest opportunity;
- e) that the changeover to the new conditions of operation should be effected with the least possible disruption to the service rendered by each station;

recognizing

- a) that the implementation of the decisions made by ~~the present Conference~~ the WARC-92 relating to the new arrangement of the frequency bands allocated exclusively to the aeronautical mobile (OR) service between 3 025 kHz and 18 030 kHz should follow an orderly procedure for the transfer of existing services from the old to the new conditions of operation;
- b) that the procedures for the transfer of the existing frequency assignments in the aeronautical mobile (OR) service, in the bands allocated exclusively to that service between 3 025 kHz and 18 030 kHz, are specified in Resolution 412 (~~WARC-92~~Rev. WRC-95) adopted by this Conference;

resolves

- 1. that the provisions of Appendix ~~26~~(~~Rev.~~)S26, as well as the relevant provisions of Article ~~42~~S11 of the Radio Regulations, ~~as modified by this Conference~~, shall apply to any new frequency assignment, as from [0001 UTC on 12 October 1993];
- 2. that administrations shall take all the necessary measures to comply with the new conditions of use of the bands governed by Appendix ~~26~~(~~Rev.~~)S26 by not permitting the installation of new equipment whose emissions occupy a necessary bandwidth exceeding 2 800 Hz;

SUP

RESOLUTION NO. 329 (MOB-87)

**Procedure Applicable to Stations Transmitting NAVTEX-type
Information on the Frequencies 490 kHz and 4 209.5 kHz
Using Narrow-Band Direct-Printing Telegraphy**

Reasons: (Consequence of including frequencies 490 kHz and 4 209.5 kHz in
Article S9.)

RESOLUTION No. 519 (~~ORB-88~~Rev.WRC-95)

**Possible Extension to Regions 1 and 3
of Provisions for Interim Systems**

The World Administrative Radio Radiocommunication Conference ~~on the Use of the Geostationary Satellite Orbit and the Planning of Space Services Utilizing It (Second Session - Geneva, 1988~~1995),

considering

- a) that ~~this Conference~~ the WARC (Orb-88) ~~has reviewed Resolution 42 (Orb-85) of the First Session and has incorporated into the Radio Regulations a modified text of that Resolution containing provisions covering the use of interim systems in Region 2;~~
- b) that ~~this Conference~~ the WARC (Orb-88) ~~has adopted a feeder-link Plan for the broadcasting-satellite service in Regions 1 and 3;~~
- c) that some administrations in Regions 1 and 3 ~~have expressed interest in the adoption, for these Regions, of provisions similar to those adopted for interim systems in Region 2;~~
- d) that the broadcasting-satellite and associated feeder-link Plans for Regions 1 and 3 differ from those adopted for Region 2;

resolves

1. that a future competent conference should consider the possible application of regulatory provisions covering the operation of interim systems in Regions 1 and 3;
2. that administrations of Regions 1 and 3 wishing to bring into use interim systems of the broadcasting-satellite service before the date that may be determined by the future competent conference referred to in *resolves* 1, shall apply the provisions of ~~Article 4 of Appendix 30 (Orb-85) or Article 4 of Appendix 30A (Orb-88) as appropriate, using if necessary the provisions of 4.3.15 of Appendix 30 (Orb-85) or 4.2.16 of Appendix 30A (Orb-88)~~ Article S10;
3. that, when such interim systems are notified, ~~Article 5S11 of Appendix 30 (Orb-85) or Article 5 of Appendix 30A (Orb-88), as appropriate, shall be applied;~~

invites the ~~Administrative Council~~

to place this matter on the agenda of the next conference competent to consider broadcasting-satellite service matters.

3. that, until 15 December 1995, administrations may continue to use their existing assignments in accordance with the characteristics recorded in the Master International Frequency Register. After that date administrations shall take all necessary measures to modify the characteristics of their assignments so as to ensure their conformity with the provisions of Appendix ~~26~~**(Rev.)S26**;

4. that, not later than 15 December 1997, administrations shall discontinue all emissions whose bandwidth exceeds 2 800 Hz;

invites Administrations

to make every effort to eliminate incompatibilities which may occur in the transition period.

RESOLUTION No. 525 (~~WARC-92~~Rev.WRC-95)

**Introduction of High-Definition Television (HDTV) Systems
of the Broadcasting-Satellite Service (BSS) in the
Band 21.4 - 22.0 GHz in Regions 1 and 3**

~~The World Administrative Radio-Radiocommunication Conference for Dealing with
Frequency Allocations in Certain Parts of the Spectrum (Malaga-Torremolinos, 1992/Geneva, 1995),~~

considering

- a) that ~~this Conference~~ WARC-92 has reallocated the band 21.4 - 22.0 GHz in Regions 1 and 3 to the broadcasting-satellite service to be implemented after 1 April 2007;
- b) that until 1 April 2007 the existing services operating in the band 21.4 - 22.0 GHz in Regions 1 and 3 in accordance with the Table of Frequency Allocations are therefore entitled to continue operating without harmful interference from other services;
- c) that it is nevertheless desirable to facilitate the introduction of experimental HDTV systems in this band before 1 April 2007 without affecting the continued operation of existing services;
- d) that it also may be possible to introduce operational HDTV systems in this band before 1 April 2007 without affecting the continued operation of existing services;
- e) that after 1 April 2007 the introduction of HDTV systems in this band must be regulated in a flexible and equitable manner until such time as a future competent world administrative radio conference has adopted definitive provisions for this purpose in accordance with Resolution 507 (WARC-79);
- f) that procedures are required for the three sets of circumstances envisaged in considerations c), d) and e) above;

resolves

to adopt the interim procedures contained in the annex hereto with effect from [1 April 1992];

invites all administrations

to comply with the above procedures;

instructs the ~~IFRB~~Bureau

to apply the above procedures.

RESOLUTION No. 412 (WARC-92/Rev.WRC-95)

**Transfer of Frequency Assignments of Aeronautical Stations
Operating in the Frequency Bands Allocated Exclusively to
the Aeronautical Mobile (OR) Service Between
3 025 kHz and 18 030 kHz**

The World Administrative Radio Radiocommunication Conference for Dealing with
Frequency Allocations in Certain Parts of the Spectrum (Malaga-Torremolinos, 1992/Geneva, 1995),

considering

- a) that the conditions for use of each of the frequency bands between 3 025 kHz and 18 030 kHz allocated exclusively to the aeronautical mobile (OR) service were modified by this Conference ~~WARC-92~~ so as to enable a more efficient usage of the frequency spectrum available;
- b) that administrations will need to change the frequencies of their aeronautical and aircraft stations to bring them into conformity with the new Frequency Allotment Plan, as contained in Appendix ~~26(Rev.)S26~~, and to notify such transfers, where appropriate, to the ~~Board~~Bureau;

resolves

1. that, at an appropriate date, the ~~Board-Bureau~~ shall send each Administration a list of assignments to stations of the aeronautical mobile (OR) service entered on its behalf in the Master Register in the bands allocated exclusively to that service between 3 025 kHz and 18 030 kHz;
2. that, in the above list, the ~~Board-Bureau~~ shall indicate, for each frequency assignment, a replacement frequency(-ies) which fulfil(s) the provisions of Appendix ~~26(Rev.)S26~~ and which is(are) intended to replace the frequency of the assignment concerned;
3. that, after receipt of the above list, administrations shall take all the necessary measures to modify the characteristics of their assignments, so as to bring them into conformity with the provisions of Appendix ~~26(Rev.)S26~~, as early as possible and in any event, not later than 15 December 1997; any modification which has been implemented shall be notified to the ~~Board~~Bureau in accordance with No. [1214] of the Radio Regulations;
4. that the frequency assignments notified by administrations under paragraph 3 above shall be examined by the ~~Board-Bureau~~ under the relevant provisions of ~~Sub-Section II-C and Section III of Article 12-S11~~ of the Radio Regulations, ~~as modified by this Conference~~;
5. that the assignments existing in the Master Register on 15 December 1997 which are not in conformity with the provisions of Appendix ~~26(Rev.)S26~~ shall be treated as follows:
 - 5.1 within 60 days from 15 December 1997, the ~~Board-Bureau~~ shall send relevant extracts of the Master Register to the administrations concerned advising them that, under this Resolution, the assignments in question are to be modified, within a period of 90 days, so as to meet the provisions of Appendix ~~26(Rev.)S26~~;
 - 5.2 if an administration fails to notify the Board of the modifications within the prescribed period, the original entry will be retained in the Master Register for information only, ~~without a date in Column 2, without a finding in Column 13A and with a suitable remark in the Remarks column~~. The administration will be advised of this action.

**Section IV. Interim Procedure Relating to BSS (HDTV) Systems
Introduced After 1 April 2007**

5. For the purpose of introducing and operating BSS (HDTV) systems in the band 21.4 - 22.0 GHz in Regions 1 and 3 after 1 April 2007, and before a future conference has taken decisions on definitive procedures, the procedures in Sections B and C of Resolution 33 (WARC-79) Article S9 relating to advance publication and coordination of space systems and Article S11 relating to notification and recording of frequency assignments shall be applied.
6. For the purpose of this Section, BSS (HDTV) systems introduced under provisions of Sections II and III of this Resolution shall be taken into account.
7. Administrations shall, to the maximum extent possible, seek to ensure that operational BSS (HDTV) systems introduced in the band 21.4 - 22.0 GHz in Regions 1 and 3 under Sections III or IV of this Resolution have characteristics which take into account the studies of the GCIR Radiocommunication Study Groups for the preparation of a future competent world administrative radio conference.

ANNEX to Resolution No. 525 (~~WARC-92~~Rev. WRC-95)

**Interim Procedures for the Introduction of BSS (HDTV) Systems
in the Band 21.4 - 22.0 GHz in Regions 1 and 3**

Section I. General Provisions

1. It shall be understood that prior to 1 April 2007 all existing services in the band 21.4 - 22.0 GHz in Regions 1 and 3 operating in accordance with the Table of Frequency Allocations shall be entitled to continue to operate. After that date they may continue to operate, but they shall neither cause harmful interference to BSS (HDTV) systems nor be entitled to claim protection from such systems. It shall be understood that the introduction of an operational BSS (HDTV) system in the band 21.4 - 22.0 GHz in Regions 1 and 3 should be regulated by an interim procedure in a flexible and equitable manner until the date to be decided by a future competent conference.

**Section II. Interim Procedure Relating to Experimental BSS (HDTV) Systems
Introduced Before 1 April 2007**

2. For the purpose of introducing experimental BSS (HDTV) systems in the band 21.4 - 22.0 GHz in Regions 1 and 3 before 1 April 2007 under the provisions of Article ~~34~~S27 of the Radio Regulations, the procedures contained in ~~Resolution 33 (WARC-79)~~Articles S9 and S11 shall be applied.

**Section III. Interim Procedure Relating to Operational BSS (HDTV) Systems
Introduced Before 1 April 2007**

3. For the purpose of introducing operational BSS (HDTV) systems in the band 21.4 - 22.0 GHz in Regions 1 and 3 before 1 April 2007, the procedure contained in ~~Resolution 33 (WARC-79)~~Article S9 relating to coordination with terrestrial services shall be applied, if the power-flux density at the Earth's surface produced by emissions from a space station, on the territory of any other country, exceeds:

- -115 dB(W/m²) in any 1 MHz band for angles of arrival between 0 and 5 degrees above the horizontal plane; or
- -105 dB(W/m²) in any 1 MHz band for angles of arrival between 25 and 90 degrees above the horizontal plane; or
- values to be derived by linear interpolation between these limits for angles of arrival between 5 and 25 degrees above the horizontal plane.

These limits relate to the power-flux density which would be obtained under assumed free-space propagation conditions.

4. If the power-flux density at the Earth's surface produced by emissions from a space station does not exceed these limits, the procedure in ~~Sections B and C of Resolution 33 (WARC-79)~~of Article S9 relating to advance publication and coordination of space systems and that of Article S11 for notification and recording of frequency assignments only shall be applied.

RESOLUTION No. 642 (Rev.WRC-95)

Relating to the Bringing into Use of Earth Stations
in the Amateur-Satellite Service

The World Administrative Radio Radiocommunication Conference, Geneva, ~~1979~~ 1995,

recognizing

that the procedures of Articles ~~11-S9~~ and ~~13-S11~~ are applicable to the amateur-satellite service;

recognizing further

- a) that the characteristics of earth stations in the amateur-satellite service vary widely;
- b) that space stations in the amateur-satellite service are intended for multiple access by amateur earth stations in all countries;
- c) that coordination among stations in the amateur and amateur-satellite services is accomplished without the need for formal procedures;
- d) that the burden of terminating any harmful interference is placed upon the administration authorizing a space station in the amateur-satellite service pursuant to the provisions of No. [2741] of the Radio Regulations;

notes

that certain information specified in ~~Appendices 3 and 4~~ Appendix S4 cannot reasonably be provided for earth stations in the amateur-satellite service;

resolves

1. that when an administration (or one acting on behalf of a group of named administrations) intends to establish a satellite system in the amateur-satellite service and wishes to publish information with respect to earth stations in that system it may:
 - 1.1 communicate to the ~~IFRB-Bureau~~ all or part of the information listed in Appendix ~~3S4~~; the ~~IFRB-Bureau~~ shall publish such information in a special section of its weekly circular requesting comments to be communicated within a period of four months after the date of publication;
 - 1.2 notify under Nos. ~~1488 to 1491~~ Article S11 all or part of the information listed in Appendix ~~3S4~~; the ~~IFRB-Bureau~~ shall record it in a special list;
2. that this information shall include at least the characteristics of a typical amateur earth station in the amateur-satellite service having the facility to transmit signals to the space station to initiate, modify, or terminate the functions of the space station.